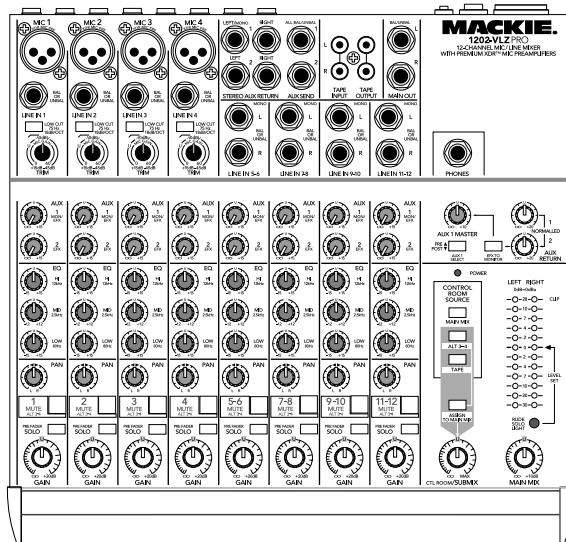


# MACKIE®

## 1202-VLZ PRO

12-CHANNEL MIC/LINE MIXER

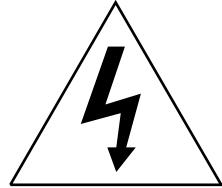


## SERVICE MANUAL

## CAUTION AVIS



RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE THE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE. AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER. CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE.

AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE A LA PLUIE OU A L'HUMIDITE.

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UN PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSERERES A FOND SANS LAISSER AUCUNE PARTIE A DECOUVERT.

This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION : Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par les ministère des communications du Canada.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio energy and, if not installed properly and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'électrocution.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

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## INTRODUCTION



This manual contains basic service information. It is essential that you have a copy of the user's manual as this contains the complete operating instructions.

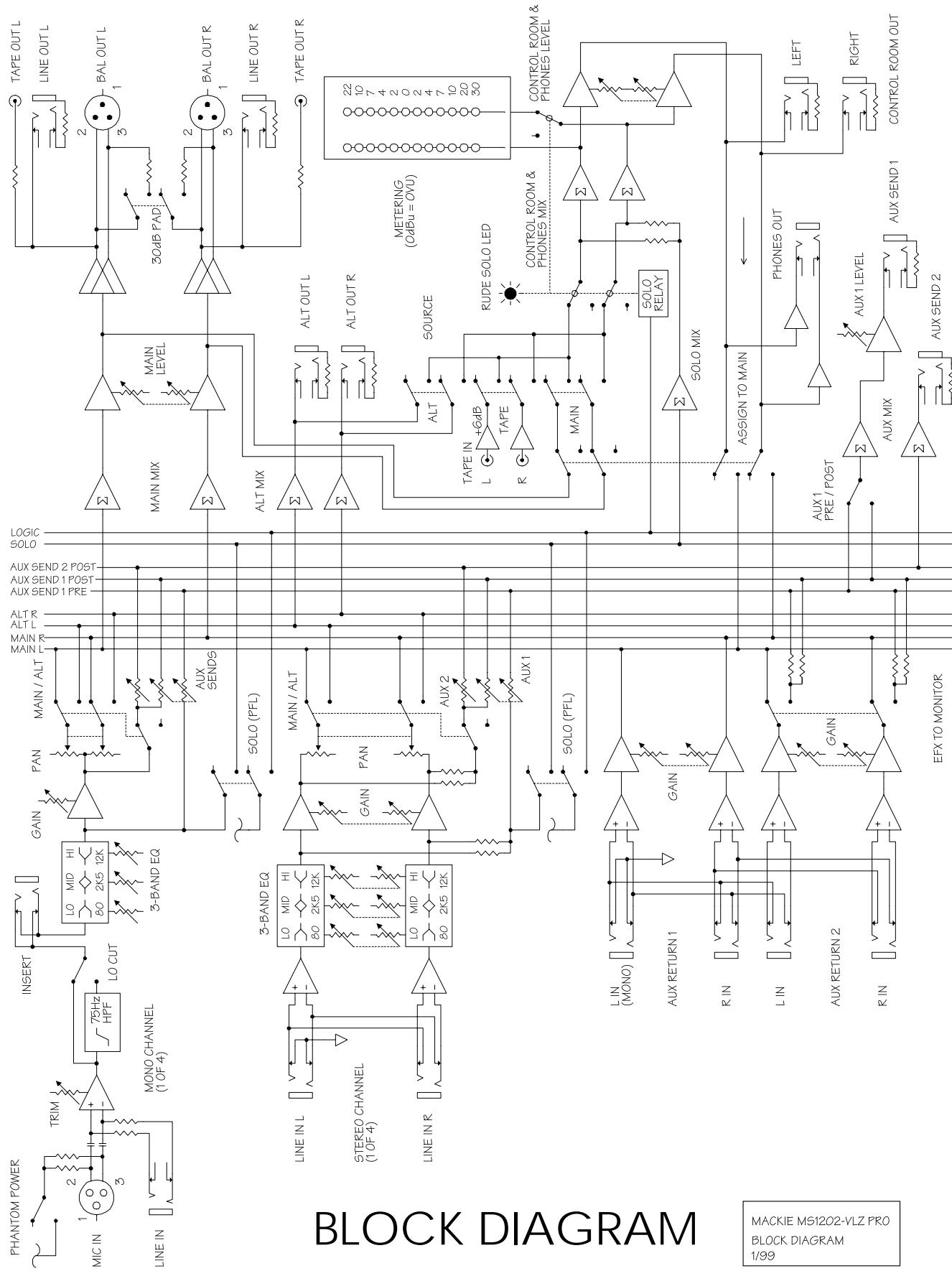


### SERVICE TECHNICAL ASSISTANCE

Mackie Designs, Service Technical Assistance, is available 8AM - 5PM PST, Monday through Friday for Authorized Mackie Service Centers, at 1-800-258-6883. Feel free to call with any questions and speak with a carefully-calibrated technician. If one is not available, leave a detailed message and a qualified Mackoid will return your call asap.

### DISCLAIMER

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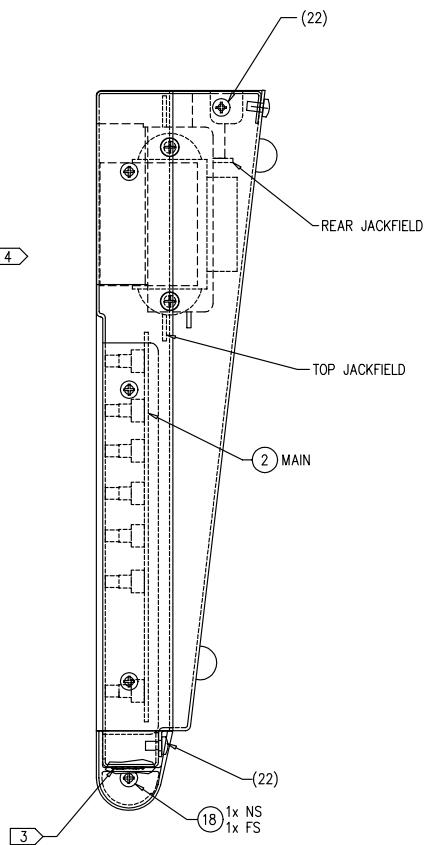
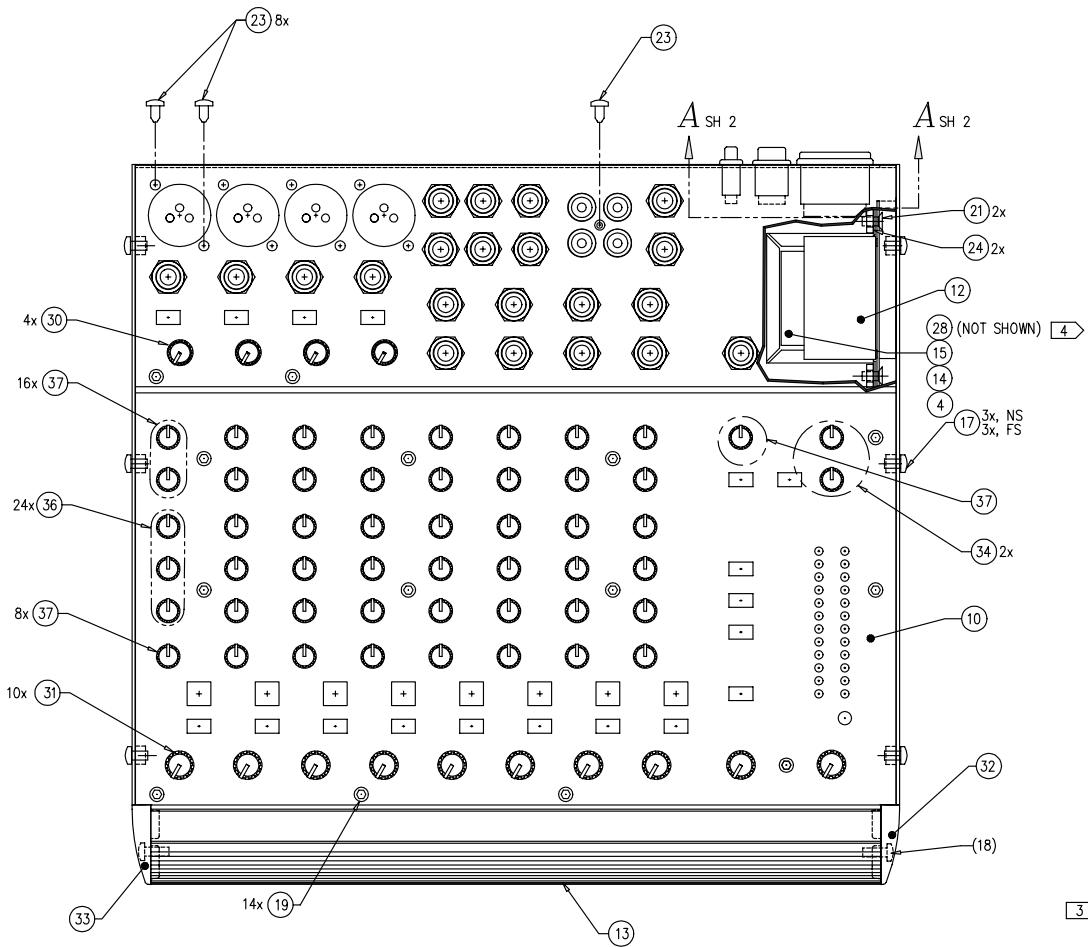
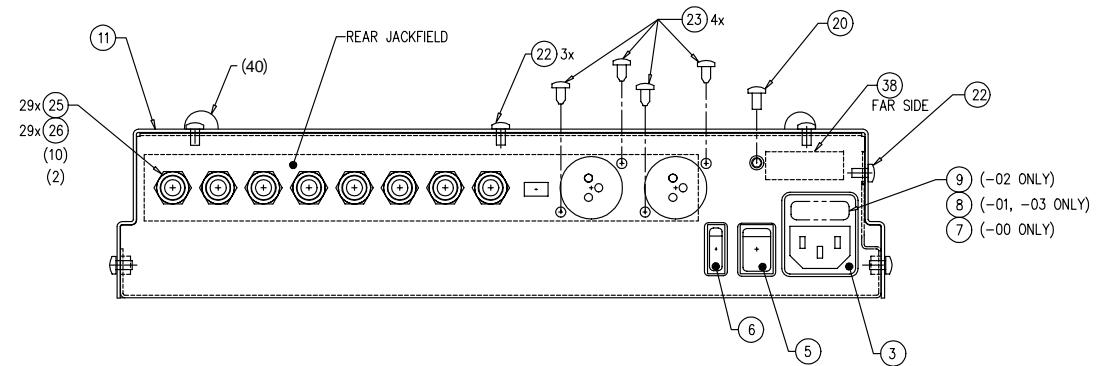


## BLOCK DIAGRAM

MACKIE MS1202-VLZ PRO  
BLOCK DIAGRAM  
1/99

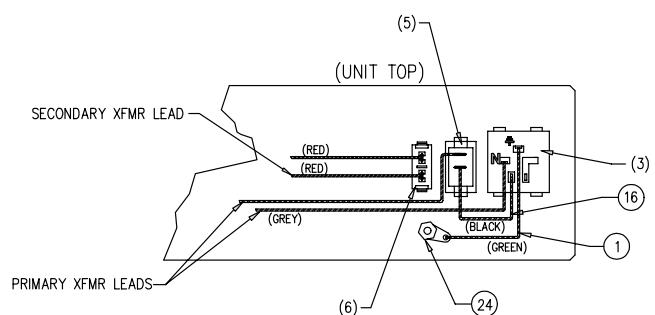
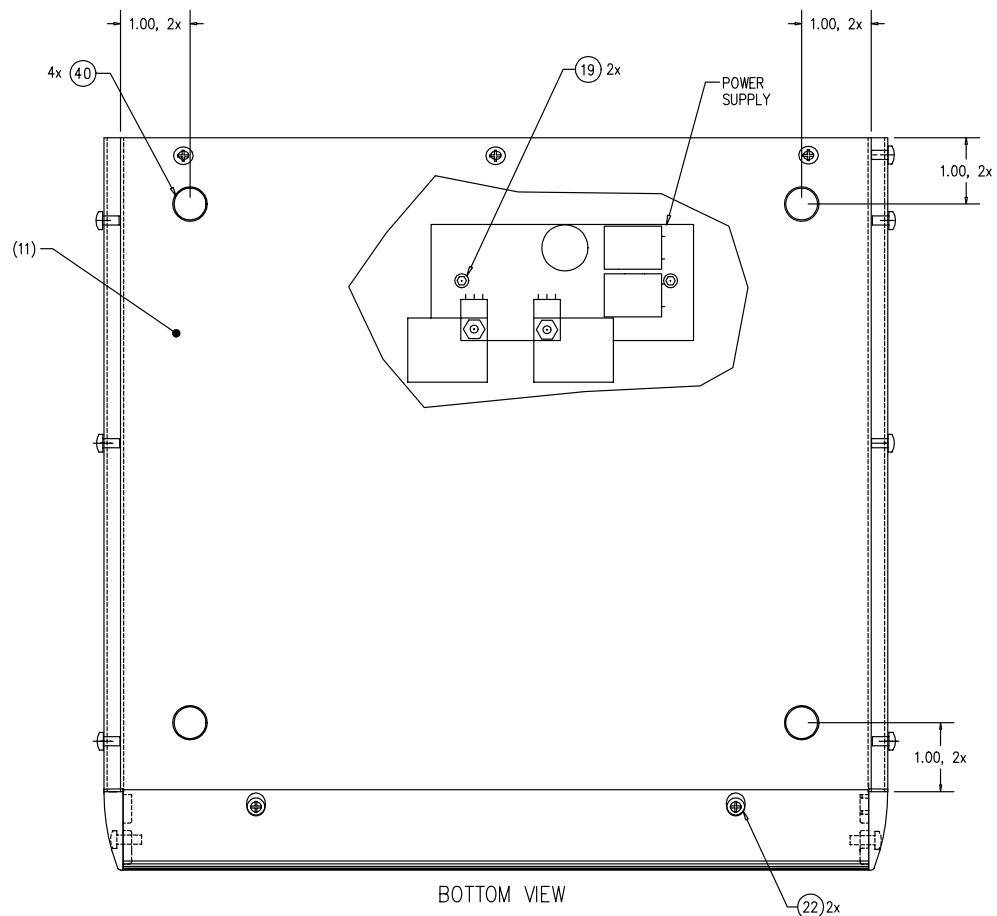
# ASSEMBLY GUIDE

The circled item numbers are shown in the parts list on page 7



# ASSEMBLY GUIDE

The circled item numbers are shown in the parts list on page 7



# PARTS LIST

## 090-099-00 Master BOM

#	PART NO.	DESCRIPTION	REV	QTY	NOTES
	090-099-00	1202VLZ PRO 120V	C2	1	
②	055-217-00-01	PCB ASSY 1202-PRO	B1	1	See pages 8-11
①	040-056-00	18GA 1015 GRN 3.25IN WITH NO.6 LUG	A	1	
③	400-009-00	IEC W/FUSEHOLDER	A	1	
④	080-009-00	SA XFMR - 1202VLZ 120V	A	1	
	080-009-01	SA XFMR - 1202VLZ 230V	A	1	
	080-009-02	SA XFMR - 1202VLZ 100V	A	1	
	400-103-00	5P .156X1 22GA END	A	1	
	610-017-01	WIR 22GA 1007 RED 8 ST1	D	1	
⑤	500-013-00	SW RCKR SPST 6A PWR SFTY	A	1	
⑥	500-016-00	SW RCKR SPST 6A/250V	A	1	
⑦	510-031-00	FUSE SB .5A 5X20 250V UL	A	1	
⑩	550-150-10	SCN CHAS TOP 1202VLZ PRO	M	1	
	704-001-00	PEMNUT 6-32 .030 STL	A	6	
⑪	550-151-00	PAINT BOTTOM - 1202VLZ	F	1	
⑫	550-429-00	XFMR SHLD M6 VLZ PRO	A	1	
	553-013-07	M6 9.48X1.90	A	1	
⑬	551-014-00	EXTR PNT ARMREST-1202VLZ	A	1	
⑯	611-006-00	WIR 18G 1010 BLK 1.25 ST2	D	1	
	640-001-00	LC IEC SJT 10A/125V 6FT	D	1	
⑯	700-010-00	TF 6-32X1/4 PHP BLKZC	A	6	
⑯	700-010-06	TF 6-32X1/2 PHP BLKZC	A	2	
⑯	700-011-00	MCH 4-40X1/4 BTNSKT BLKZC	A	16	
⑯	700-031-01	MCH 6-32X1/4 BTNPIN BLKZC	A	1	
⑯	700-036-02	MCH 6-32X1/4 FLT100DG CLR	A	2	
⑯	701-005-00	SM A-AB 6X1/4 PHP BLKZC	A	6	
⑯	701-016-00	5-20X5/16 PHPII TYP B BLK	A	13	
⑯	705-001-00	KEPNUT 6-32	A	3	
⑯	705-003-00	NUT (SUPPLIED W/JACK)			
⑯	710-002-00	WASHER (SUPPLIED WITH JACK)			
⑯	730-032-00	ADHESIVE 2 PART EPOXY 460			
⑯	740-001-00	TYRAP 3-1/4L		1	
⑯	750-001-00	BUMPON ROUND BLK .63X.31	A	4	
⑯	760-023-00	KNOB 11MM OFF-WHITE	B	10	
⑯	760-034-10	ENDCAP RIGHT MICRO SERIES	B	1	
⑯	760-034-20	ENDCAP LEFT MICRO SERIES	B	1	
⑯	760-048-01	KNOB 9MM LT GRY	B	2	
⑯	760-048-03	KNOB 9MM BLU/GRY	B	24	
⑯	760-048-04	KNOB 9MM DARK GRAY	B	25	
⑯	760-081-00	KNOB TRIM W/PNTR	A	4	
	790-002-00	BAG POLY 12 X 18 2MIL	A	1	
	790-005-00	BAG POLY 14 X 20 4 MIL		1	
	810-042-00	FOAM BACK MOLDED 12/1402		1	
	810-042-01	FOAM FRONT MOLDED 12/1402		1	



NOTE: Use the correct voltage transformer and the correct fuse.

### Parts Numbering guide

040-	Cables
055-	Finished PCB Assy
100-	Pots and resistors
200-	Capacitors
300-	Semiconductors
400-	Jacks/Connectors
500-	Switches
510-	Fuses
550-	Chassis Metalwork
600-	Transformers
601-	Inductors
610-	Wires and Cables
640-	AC line cords
700-	Hardware
760-	Knobs/Plastic
770-	Fans
790-	Misc./Packing
800-	Printed Material
860-	EPROM

Item numbers in this column correspond to the circled numbers in the diagrams on pages 5 and 6



**990-217-00 REV B, 1202 VLZ PRO Board**

PART NO.	DESCRIPTION	VALUE	REFERENCE DESIGNATORS
100-008-00	RESISTOR CF	20	5% R114 R116
100-028-00	RESISTOR CF	130	5% R84 R137
100-059-00	RESISTOR CF	2K7	5% R69 R127
100-061-00	RESISTOR CF	3K3	5% R74 R122
100-066-00	RESISTOR CF	5K1	5% R91
100-080-00	RESISTOR CF	20K	5% R150
100-104-00	RESISTOR CF	200K	5% R94 R97
110-013-00	RESISTOR CF	33	5% R90 R148
115-081-00	RES .25W 1% 6R81 OHM	6.81	1% R42-43 R48-49 R53-54 R58-59
115-373-00	RESISTOR CF	6K81	1% R45-46 R50-51 R55-56 R60-61
130-002-02	RESISTOR POT 9MM HORIZ	50KB	R341 R343 R345 R347 R391 R393 R395 R397 R434-437
130-003-02	RESISTOR POT 9MM HORIZ	50KG	R264 R303-310 R605 R607 R609 R611
130-060-02	RESISTOR POT 12MM HORIZ DUAL	50KB	R349 R351 R353 R355 R399 R401 R403 R405 R439 R441 R443 R445
130-061-02	RESISTOR POT 12MM HORIZ DUAL	50KG	R266 R312 R622 R624 R249 R251 R253-254 R256 R258 R260 R262 R613 R615 R618 R620
130-065-02	RESISTOR POT 12MM HORIZ DUAL	10KC/10KA	R486-493
130-074-02	RESISTOR POT 9MM HORIZ	10KZY	R164-167
140-032-00	RESISTOR CF	20	5% R581
140-037-00	RESISTOR CF	33	5% R582
140-051-00	RESISTOR CF	120	5% R20 R22-24 R32 R37 R40 R85 R568
140-053-00	RES TF SM .1W 5% 150 OHM	150	5% R242
140-057-00	RESISTOR CF	220	5% R359-360 R372-373 R542 R564
140-061-00	RESISTOR CF	330	5% R495 R525
140-065-00	RESISTOR CF	470	5% R100-101 R104-105 R108-109 R112-113 R476 R506 R569
140-066-00	RES TF SM .1W 5% 510 OHM	510	5% R237 R468 R527-528 R530 R533 R541 R554 R606 R608 R610 R617 R625-626 R653-655 R657-659 R661-664 R238 R515 R280
140-068-00	RESISTOR CF	620	5% R457
140-072-00	RESISTOR CF	910	5% R374-377 R385-388 R400 R402 R404 R406-414 R453-456
140-074-00	RESISTOR CF	1K1	5% R27 R31 R324-327 R342 R344 R346 R348 R350 R352 R354 R356
140-076-00	RESISTOR CF	1K3	5% R224-226 R228 R328 R330 R332 R334 R361 R363 R365 R367 R392 R394 R396 R398 R431
140-080-00	RESISTOR CF	2K	5% R246 R272 R300 R313 R423 R570-573 R580 R592 R597-599 R614 R616 R619 R621 R633 R637
140-087-00	RESISTOR CF	3K9	5% R384
140-090-00	RESISTOR CF	5K1	5% R95 R115 R171 R196 R205 R222 R250 R252 R255 R267 R279 R282-284 R314-317 R418-419 R451-452 R472-473 R475 R485 R494 R496-505 R507-512 R517 R519-521 R535 R540 R553 R575-577 R583 R600-601
140-091-00	RESISTOR CF	5K6	5% R382
140-093-00	RESISTOR CF	6K8	5% R320-323 R329 R331 R333 R335 R362 R364 R366 R368 R421 R424-426 R438 R458-460 R462 R464-466
140-094-00	RESISTOR CF	7K5	5% R370 R379

## 990-217-00 REV B continued

PART NO.	DESCRIPTION	VALUE	REFERENCE DESIGNATORS
140-097-00	RESISTOR CF	10K 5%	R19 R21 R30 R39 R92 R126 R149 R154 R168 R189 R247 R257 R259 R261 R263 R268-271 R273 R275-276 R285-296 R336 R339 R357 R369 R371 R383 R416-417 R440 R442 R444 R446 R461 R463 R467 R471 R477 R479 R481 R483 R545-552 R563 R578 R594 R623 R628-630 R632 R638
140-104-00	RESISTOR CF	20K 5%	R25-26 R123-125 R128 R138 R160-163 R169-170 R172 R174 R176 R178 R180 R182 R184 R186 R190 R378 R381 R430 R432 R522 R524 R529 R567 R596
140-109-00	RESISTOR CF	30K 5%	R244-245 R302 R318-319 R543-544
140-111-00	RESISTOR CF	36K 5%	R559-562 R565-566 R585 R587 R589 R591 R248 R265 R274 R278 R297 R337-338 R536-539 R555-558 R574 R579 R584 R586 R588 R590
140-114-00	RESISTOR CF	47K 5%	R420 R422
140-117-00	RESISTOR CF	62K 5%	R220-221 R223 R227 R298-299 R301 R311 R603-604 R631 R634
140-123-00 R640	RESISTOR CF	100K 5%	R340 R358 R380 R389-390 R415 R427 R433
140-130-00	RESISTOR CF	200K 5%	R639
140-147-00	RESISTOR CF	1M 5%	R428-429 R447-450 R469-470 R478 R480 R482 R484
141-051-00	RESISTOR TF SMT	120 5%	R1-8 R12-15 R28-29 R38 R41 R93 R96 R121 R143
145-000-00	RESISTOR SMT	0 5%	R649-652
145-051-00	RESISTOR MF SMT	3R32 1%	R151-153 R155
145-182-00	RES MF SM .1W 1% 76R8 OHM	76.8 1%	R239 R531
145-201-00	RESISTOR TF SMT	121 1%	R9 R18
145-306-00	RES MF SM .1W 1% 1K50 OHM	1K50 1%	R44 R66-68 R70 R75-77
145-331-00	RES MF SM .1W 1% 2K49 OHM	2K49 1%	R98-99 R102-103 R106-107 R110-111 R129-136 R139-142 R144-147 R117-120
145-361-00	RESISTOR MF SMT	5K11 1%	R10-11 R16-17 R188 R192 R194 R201 R204 R207 R212 R214 R595 R602 R635-636 R641-648
145-365-00	RESISTOR MF SMT	5K62 1%	R47 R52 R57 R71-73 R82-83
145-389-00	RESISTOR MF SMT	10K0 1%	R33-36 R62-65 R78-81 R86-89 R156-159 R173 R175 R177 R179 R181 R183 R185 R193 R197-200 R208-211 R216-219 R229-236 R191 R202 R213 R215 R203 R206 R187 R195
200-001-02	CAPACITOR MYLAR T&R	0.012	C208 C210 C212 C214 C241-244 C260-275
200-002-02	CAPACITOR MYLAR T&R	0.018 10%	C201-204 C209 C211 C213 C215-219 C222-229 C235-238
200-003-02	CAPACITOR MYLAR TAPE	0.033 10%	C248-251 C253-256 C285 C287 C290-291 C293-294 C305 C309 C328-331 C335-338
212-001-00	CAPACITOR CERAMIC SMT	0.01 5%	C300 C421-428
212-003-00	CER 100PF 5% 50V NPO SM	100PF 5%	C72-73 C76-79 C85-86 C102-105 C111-114 C413-416
212-004-00	CER 220PF 5% 50V NPO SM	220PF 5%	C417-420
212-005-00	CAPACITOR CERAMIC SMT	20PF 5%	C36-37 C43-44 C60-61 C66 C68 C74 C87 C146-149 C154-157 C166-167 C170 C172 C174 C176-177 C179 C181-182 C184 C186 C189 C220-221 C252 C258 C346-352 C361 C374 C376 C378 C380

# MACKIE 1202 VLZ PRO SERVICE MANUAL

PART NO.	DESCRIPTION	VALUE	REFERENCE DESIGNATORS	
212-006-00	CER 470PF 5% 50V NPO SM	470PF	5%	C5-6 C429-432
212-009-00	CAPACITOR CERAMIC SMT	47PF	5%	C3-4 C16 C22 C38-41 C318 C323
			C339-340 C342 C345 C390 C397 C403	
212-010-00	CAPACITOR CERAMIC SMT	.1UF	-400	C59 C67 C90-97 C117-118 C138-141
			C168-169 C171 C173 C175 C178 C200	
			C230 C233 C239 C247 C257 C276 C280	
			C289 C292 C301-302 C313 C333-334	
			C343 C354-357 C368-369 C385-389 C402	
			C406 C408	
212-018-00	CAPACITOR CERAMIC SMT	10PF	5%	C81-84 C98-101 C286 C288 C295-298
			C306 C310 C319-322 C366 C383 C392	
			C407	
212-019-00	CER 150PF 5% 50V SM	150PF	5%	C127-128 C131 C137 C142 C144 C150
			C153	
212-034-00	CAPACITOR CERAMIC SMT, X7R	0.022	10%	C409-412
212-036-00	CER 470PF 2% 50V NPO SMT	470PF	2%	C42 C46-49 C54 C56 C58
212-037-00	CER 1000PF 2% 50V NPO SMT	1000PF	2%	C27-32 C34-35
220-002-02	CAPACITOR LYTIC RADIAL TAPE	47UF	10%	C9 C11-14 C21 C33 C45 C50 C52-53 C55
			C57 C62-65 C69-70 C80 C106-107 C115	
			C119 C121-125 C133-136 C151 C180	
			C183 C185 C187-188 C190-199 C205-207	
			C231-232 C234 C240 C245-246 C259	
			C277-279 C281-284 C299 C303-304	
			C307-308 C311-312 C314-317 C324-327	
			C332 C341 C344 C353 C358-360	
			C362-365 C367 C370-373 C375 C377	
			C379 C381 C384 C391 C393-396	
			C398-401 C404-405	
			C126 C129-130 C132	
220-003-02	CAPACITOR LYTIC RADIAL TAPE	47UF	10%	C7-8 C10 C15 C17-20 C75 C88
220-006-01	CAPACITOR LYTIC RADIAL	2200UF	10%	C1-2
220-007-00	CAPACITOR LYTIC RADIAL	100UF	10%	C71
220-013-02	CAPACITOR LYTIC RADIAL TAPE	.22UF	10%	C116 C143 C145 C152 C158-165
220-014-00	CAPACITOR LYTIC RADIAL KS	2.2UF	10%	C382
220-027-02	CAPACITOR LYTIC RADIAL T&R	10UF	10%	C51 C89
220-030-00	CAPACITOR LYTIC RADIAL	1000UF	10%	C108-110 C120
300-003-00	DIODE SIGNAL SMD	DL4148		D28-31 D35-38 D63 D65 D67
301-001-00	DIODE POWER	1N4002		D1-8 D17 D26 D32-33
301-004-00	DIODE POWER SMD	DL4002		D9-16 D18-25
302-001-00	DIODE ZENER	1N5261		D27
302-002-00	DIODE ZENER	1N5230		D66
304-002-00	DIODE LED T1-3/4 W/FLASHER	RED		D64
304-027-02	LED T1, T&R W/SPACER	RED		D39-40
304-028-02	LED T1, T&R W/SPACER	YEL		D41-42
304-029-02	LED T1, T&R W/SPACER	GRN		D34 D43-62
310-003-02	TRANSISTOR PNP, T&R	2SA1084		Q1-8
310-006-00	TRANSISTOR POWER NPN	TIP29C		Q9 Q18
311-002-00	X-SISTOR PNP SMD	IMBT4403		Q10-17 Q19-22 Q27-28
311-004-00	TRANSISTOR JFET SMD	J112		Q23-26
320-006-00	I.C. LINEAR SMD	NJM 2068		U7-12 U27-28 U38 U40-41 U48-49
320-011-00	I.C. LINEAR	NJM 4560		U4-5
320-012-00	I.C. LINEAR SMD	NJM4560M		U1 U3 U13-24 U29-32 U34 U36 U42-47
321-008-00	I.C. ADJ POS 3 TERM VOLTAGE REGULATOR	LM317T		U2
321-009-00	I.C. ADJ NEG 3 TERM VOLTAGE REGULATOR	LM337T		U6
323-002-00	I.C. QUAD COMPARATOR SMD	LM339		U25-26 U33 U35 U37 U39

## 990-217-00 REV B continued

PART NO.	DESCRIPTION	VALUE	REFERENCE DESIGNATORS
400-022-00	CONNECTOR JACK QUAD RCA HORIZ	J20	
400-030-00	CONNECTOR RTA 5P .156 X 1	J1	
400-041-00	CONNECTOR XLR PC MTG VERT MALE	J10-11	
400-214-00	CONNECTOR JACK 1/4" VERT PC MOUNT W/1MM LW	J2-9 J12-15 J21-37	
400-223-00	CONNECTOR XLR PC MTG VERT FML	16-19	
450-217-00	PCB, 1202VLZ PRO	Z500	
500-036-00	SWITCH PUSH VERT PC MTG	4P2T	SW1 SW11-19
500-037-00	SWITCH PUSH VERT PC MTG	2P2T	SW2-10 SW20-27
550-166-00	HEATSINK, POWER SUPPLY		Z62 Z75
601-002-00	INDUCTOR, AXIAL	4.7UH	L13-16
601-004-00	FERRITE BEAD SMB	MLB40-5	L5-12
601-007-00	CHOKE, COMMON MODE	50mH	L1-4
620-031-00	CBL FLT 5C 26AWG .100 3"		E1-4
620-032-00	CBL FLT 6C 26AWG .100 5"		E5
660-002-00	JUMPER WIRE 24GA T&R		W1-36 W38-40 W42-45
700-012-00	SCREW, PHP 4-40 X 3/8"		Z150-151 Z174-175
705-005-00	KEPNUT 4-40		Z152-153 Z172-173
706-013-00	STANDOFF, M/F #4 X .978"		Z913-914
706-033-02	STDF SWAGE NO.4 X .555L F		Z81-92
706-038-00	STDF NO.4 X .250L		Z103-104
730-001-00	THERMAL COAT COMPOUND		Z154
760-107-00	BTN 2 COLOR 9X5MM		Z7 Z61 Z63-64 Z76-80 Z93-97
760-108-00	BTN 2 COLOR 9X9MM		Z1 Z98-101 Z105-107
760-109-00	BTN 2 COLOR 9X5MM W/EXT		Z5 Z108-111

# MACKIE 1202 VLZ PRO SERVICE MANUAL

